ORDER

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

1100.139

5/21/74

SUBJ: AIR TRAFFIC AND AIRWAY FACILITIES RESPONSIBILITIES AT NAS COMPUTER-EQUIPPED TERMINAL FACILITIES

1. PURPOSE. This order defines the working relationship and the responsibilities of the air traffic staff and the airway facilities staff and establishes automated system utilization priorities at all NAS computer-equipped terminal facilities.

2. DISTRIBUTION. This order is being distributed to branch level in Air Traffic and Airway Facilities in Washington and Regional headquarters; FAA Academy; Aviation Facilities and Air Traffic Systems Divisions at NAFEC; Airport Traffic Control Towers; Combined Station/Towers; RAPCONs; RATCCs; TRACONs; Air Traffic Liaison Offices; Airway Facilities Sectors and Sector Field Offices.

3. BACKGROUND. The highest degree of cooperation is required to achieve satisfactory results in the implementation and use of NAS automated terminal systems. The roles of AAT and AAF staffs have been determined by use of earlier automated systems and by agency automation training programs. This order standardizes the assignment of critical responsibilities and provides limited guidance on procedural matters.

4. POLICIES. No individual or organization shall be permitted to take unilateral action which may have a detrimental effect on the scheduling, testing, maintenance, and utilization of the automated air traffic control system. Coordination shall be effected in all matters concerning other organizations.

5. RESPONSIBILITIES.

    a. The Air Traffic Data Systems Staff or designated Air Traffic Control Specialist is responsible for:

        (1) Assessing the effectiveness of the automation system on the air traffic control environment.

        (2) Relating and integrating the operational functions of automation equipment to the control of air traffic.

        (3) Serving as the Focal Point for the coordination of activities requiring the use of automated equipment for air traffic control.

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Initiated By: AAT-530

(4) Operating and overseeing the operation of the computer system during the use of the ATC Operational Program for air traffic control operations and its associated support programs including system startup and system shutdown.

(5) Originating and prescribing the entry of all messages that affect the program utilization of input/output devices which are available to the system while being used for air traffic control operations, e.g., DEDS and TTY.

b. The Airway Facilities ARTS Staff is responsible for:

(1) The continuous availability of the automated equipment.

(2) The functional verification of all elements, devices and interfaces used in the Operational ATC System including system certification in accordance with Order 6030.22A.

(3) Operating and overseeing the computer system or off-line subsystems, including system startup and shutdown, during periods of maintenance and/or certification. In the event the ATC Operational Program is started up during these periods, coordination will be required with the appropriate air traffic personnel to preclude the use of the system operationally while maintenance is being performed.

(4) Ensuring that use of any off-line subsystems elements does not cause these elements to be unavailable to the ATC Program during operational hours without prior coordination with the Data Systems Specialist or designated Air Traffic Control Specialist.

c. Software Maintenance Responsibilities.

(1) All software maintenance responsibilities shall be discharged in accordance with the policies and procedures contained in the following orders and subsequent revisions:

(a) Order 1100.121A, Management of Air Traffic Control Automation Systems.

(b) 1100.134A, Procedures for the Maintenance of Computer Program Subsystems.

(c) Order 1800.8C, National Airspace System Configuration Management Procedures.

(2) The following guidelines delineate the principal areas of software maintenance responsibilities:

(a) ATC Operational Computer Program - The data systems personnel, where staffed, are responsible for on-site maintenance of the operational ATC Computer Programs and associated support programs and all subsequent approved changes thereto. Appropriate coordination shall be effected with the Airway Facilities ARTS Staff. At facilities where data systems personnel are not provided, the designated Air Traffic Control Specialist will coordinate on-site operational software maintenance efforts with the Area Support Facility and/or the National Terminal Data Systems Branch (AAT-550) and shall be responsible for coordinating with the Airway Facilities ARTS Staff.

(b) Hardware Maintenance and Diagnostic Programs - The Airway Facilities ARTS Staff is responsible for on-site maintenance and improvement of these programs, and coordination of this activity with the Automation Engineering Support Branch (AAF-360).

6. SCHEDULING. The following utilization plan has been developed by AAT/AAF. Revisions will be made as required. Minor adjustments of a temporary nature may be made locally after coordination with appropriate facility AT/AF personnel. If a local schedule is required, the AF Sector Manager and AT Facility Chief will jointly delegate scheduling responsibilities to a member of either staff. Organizations requiring computer time shall submit their requirements to this designee.

7. SCHEDULING PRIORITIES. The priorities contained herein shall be used during the time periods when an approved ATC Operational Computer Program is not scheduled for use as outlined in Appendix 1 (Hours of ATC Operation). These priorities may be modified when special conditions or events warrant.

a. ATC Operational Software and Hardware Modifications (Time Critical) - This category shall be used when urgent hardware or software changes must be accomplished to preserve the integrity and useability of the ATC Operational Computer Program. Normally, associated software and
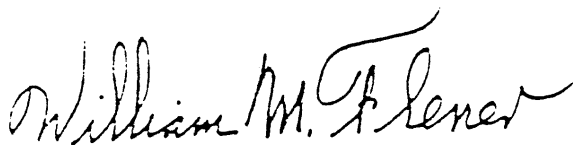
hardware modifications will be accomplished in the schedule of "ATC Operational Software Modifications (Routine)" and "Preventive Maintenance."

b. ATC Operational Computer Program (Operationally Required) - This category shall be used for additional execution of the ATC Operational Computer Program during periods that it is not normally scheduled for execution. This usage is supplemented to normally scheduled periods of execution and shall be accomplished only when stringent operational demands on the air traffic control system require additional automated assistance.

c. Field Support. This category applies only to Area Support Facilities who are required to provide support to satellite ARTS facilities through the assembly of new system tapes within a specified time frame. This activity will normally take place during the first two weeks after the delivery of a new system tape by AAT-500/AAF-360 and normally should not exceed four hours of system time per 24-hour period.

d. Corrective Maintenance - This category is used for corrective maintenance on equipment when its unavailability does not cause derogation of the ATC Operational Computer Program, but requires use of the system for maintenance. In the event that unavailability of the failed equipment causes derogation of the ATC Operational Computer Program or if an imminent equipment failure will derogate the ATC Program, the priority of associated corrective maintenance will be raised to the level required to minimize the derogatory impact on ATC operations. Additional system resources shall be made available as required to perform corrective maintenance.

e. System Tape Testing - This category shall be used for the performance of acceptance testing of nationally distributed operational and maintenance diagnostic system tapes as required to comply with established schedules.

f. Preventive Maintenance - This category shall be used for the performance of all regularly scheduled equipment maintenance activities. This includes hardware modifications and associated software modifications if not time critical. Daily time requirements for preventive maintenance should not normally require more than two hours of total system utilization.

g. ATC Operational Software Modifications (Routine). This category shall be used for the accomplishment of regional or national approved changes to the ATC Operational Computer Program including the

required developmental and/or acceptance testing. It shall also be used for adaptation updates and routine execution or programs which support the ATC Operational Program.

h. Diagnostic Program Modifications (Routine). This category shall be used for the accomplishment of regional or national approved changes to diagnostic programs including the required developmental and/or acceptance testing.

i. Training - This category shall be used for all training activities, e.g., hardware, software, operator, controller, etc.

j. ATC Operational Computer Program (Routine Usage) - This category is used for additional execution of the ATC Operational Computer Program during periods not normally scheduled for execution or when items of higher priority are completed ahead of schedule.

k. Miscellaneous - This category shall be used for the development testing, or execution of all programs which are administrative in nature. (It shall be used for any computer usage which is not specified in a higher category.)

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    For Operations

NAS COMPUTER-EQUIPPED
TERMINAL HOURS OF OPERATION

This System Utilization Plan designates the time periods for execution
of approved air traffic control operational computer programs.

It provides the greatest benefit to the air traffic control system and
minimizes undesirable impact on nationwide total system utilization.
The Director, Air Traffic Service will revise this plan in coordination
with Airway Facilities Service as automated systems reach operational
status at additional facilities or as operational requirements change.
The following list designates the time period, number of hours per day
and the days of the week in which an approved ATC operational computer
program is intended for execution. During all other times not designated
for execution of an approved ATC operational program, the priorities
in Paragraph 7 of this Order shall apply for scheduling purposes.

DAILY COMPUTER TIME ALLOCATION FOR EXECUTION OF APPROVED ATC OPERATIONAL
COMPUTER PROGRAMS AT NAS COMPUTER-EQUIPPED TERMINAL FACILITIES:

Terminal Facility	Days of Week	Daily Hours	Total Hours per Day
Albany Tower	7	0700-2100	14
Albuquerque Tower	7	0630-2300	16.5
Atlanta Tower	7	0800-2400	16
Baltimore Tower	7	0800-2100	13
Birmingham Tower	7	0700-2100	14
Boston Tower	7	0700-2200	15
Buffalo Tower	7	0700-2300	16
Burbank Tower	7	0700-2100	14
Charlotte Tower	7	0700-2200	15
Chicago (O'Hare) Tower	7	0700-2400	17
Cincinnati Tower	7	0700-2300	16
Cleveland Tower	7	0700-2200	15
Columbus Tower	7	0700-2230	15.5
Dallas/Fort Worth TRACON		Not Operational	
Dayton RAPCON	7	0700-2200	15
Denver Tower	7	0600-2100	14
Des Moines Tower	7	0700-2130	14.5
Detroit Tower	7	0000-2200	22
Dulles Tower	7	0800-2100	13
El Paso Tower	7	0630-2000	13.5
El Toro RATCC	7	0700-2100	14
Hartford (Bradley) Tower	Mon-Fri	0600-2200	16
	Sat-Sun	0600-2000	14
Honolulu Tower	7	0700-2100	14
Houston Tower	Mon-Fri	0615-2230	16.25
	Sat-Sun	0715-2230	15.25

Terminal Facility	Days of Week	Daily Hours	Total Hrs. per Day
Indianapolis Tower	7	0730-2230	15
Jacksonville Tower	7	0700-2100	15
Kansas City (MCI) TRACON		Not Operational	
Knoxville Tower	7	0800-2400	16
Las Vegas (McCarren) Tower	7	0700-2100	14
Los Angeles Tower	7	0800-2100 2300-0100	15
Louisville (Standiford) Tower	7	0700-2300	16
Memphis Tower	7	0800-2000	12
Miami Tower	7	0700-0100	18
Milwaukee	7	0700-2200	15
Minneapolis Tower	7	0700-2200	15
Miramar RATCC	7	0700-2100	14
Nashville Tower	Mon-Fri.	0700-2200	15
	Sat-Sun.	0700-2100	14
New Orleans Tower	7	0630-2230	16
Norfolk Tower	7	0700-2300	16
NYCIFRR	7	0600-2400	18
Oklahoma City (Tinker) RAPCON	7	0700-2200	15
Omaha (Offutt) RAPCON	7	0600-2100	15
Orlando Tower	7	0700-2200	15
Philadelphia Tower	7	0715-2200	14.75
Phoenix TRACON	7	0700-2100	14
Pittsburgh Tower	7	0600-0100	19
Portland Tower	7	0700-2200	15
Quonset Point RATCC	7	0700-2300	16
Raleigh/Durham Tower	7	0700-2100	14
Riverside (March RAPCON)	7	0700-2100	14
Rochester Tower	7	0700-2200	15
Sacramento (McClellan) RAPCON	7	0600-2200	16
Salt Lake City Tower	7	0700-2130	14.5
San Antonio Tower		Not Operational	
San Francisco/Oakland (Bay) TRACON		Not Operational	
San Juan Tower	7	0700-2300	16
Seattle Tower	7	0700-2200	15
Shreveport (Barksdale) RAPCON	7	0700-2300	16
St. Louis Tower	7	0700-2300	16
Syracuse Tower	7	0700-2200	15
Tampa Tower	7	0800-2200	14
Tucson (Davis-Monthan) RAPCON	7	0600-2000	14
Tulsa Tower	7	0700-2300	16

Terminal Facility	Days of Week	Daily Hours	Total Hrs. per Day
Washington (National) Tower	7	0700-2300	16
Wilkes-Barre Tower (Test)	7	1200-2000	8